Query/Command : HIS

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1	2	(1) ..FAM US6693426/PN
2	4	..CITB US6693426/PN
3	1	..CITF US6693426/PN

Search statement 4

Query/Command : prt max set

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PN - US2004196037 A1 20041007 [US20040196037]

TI - (A1) Detection with evanescent wave probe

PA - (A1) INTEMATIX CORP (US)

PA0 - INTEMATIX CORPORATION; MORAGA, CA [US]

IN - (A1) WANG GANG (US); YANG HAITAO (US); XIANG XIAO DONG (US)

AP - US83318604 20040428 [2004US-0833186]

FD - Cont. in part: US 10759745 - 20040116 [2004US-0759745] PENDING
Divsn. of: US 10759745 - 20040116 [2004US-0759745]
Divsn. of: US 10071563 - 20020209 [2002US-0071563] GRANTED
Divsn. of: US 6693426 - 0 [US6693426]
Provisional: US 60344427 - 20011025 [2001US-P344427]
Provisional: US 60465736 - 20030428 [2003US-P465736]

PR - US83318604 20040428 [2004US-0833186]
US75974504 20040116 [2004US-0759745]
US7156302 20020209 [2002US-0071563]
US34442701P 20011025 [2001US-P344427]
US46573603P 20030428 [2003US-P465736]

IC - (A1) G01V-003/00

EC - G01N-024/10

PCL - ORIGINAL (O) : 324300000; CROSS-REFERENCE (X) : 324316000; 324321000; 324304000

DT - Corresponding document

STG - (A1) Utility Patent Application published on or after January 2, 2001

AB - Methods and systems for spatially resolved spin resonance detection in a sample of material are disclosed. Also disclosed are methods and systems for spatially resolved impedance measurements in a sample of material. The disclosed methods and samples can be used in screening of plurality of biological, chemical and material samples.

UP - 2004-41

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PN - US6693426 B1 20040217 [US6693426]

TI - (B1) Spatially resolved spin resonance detection

PA - (B1) INTEMATIX CORP (US)

PA0 - Intematix Corporation, Moraga CA [US]

IN - (B1) WANG GANG (US); YANG HAITAO (US); DIONNE GERALD F (US); XIANG XIAO DONG (US)

AP - US7156302 20020209 [2002US-0071563]

PR - US7156302 20020209 [2002US-0071563]

IC - (B1) G01V-003/00

EC - G01N-024/10

PCL - ORIGINAL (O) : 324300000; CROSS-REFERENCE (X) : 324304000

DT - Basic

CT - Cited; US6311086; US6472869; US6538454

STG - (B1) U.S. Patent (no pre-grant pub.) after Jan. 2, 2001

AB - Methods for spatially resolve spin resonance detection in a sample of material, with a resolution as small as 0.5 mu m-1 mm. In one embodiment, a coupler having at least one pair of degenerate orthogonal modes provides an evanescent input signal along one coupler axis to the sample, to which a magnetic field is applied, and senses a spin interaction signal along another coupler axis. In another embodiment, an evanescent input signal is applied to the sample along one of two identical transmission line resonators, and a difference of the two resonator signals provides a spin interaction signal. In another embodiment, a polarized laser beam provides an evanescent input signal to the sample, and the spin interaction signal is sensed according to a second beam polarization direction. Certain ferromagnetic or ferrimagnetic molecules, such as YIG, can be used to tag selected chemical and biological molecules, using spatially resolved spin resonance detection for interrogation.

UP - 2004-08

Search statement 2

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PN - US6693426 B1 20040217 [US6693426]

TI - (B1) Spatially resolved spin resonance detection

PA - (B1) INTEMATIX CORP (US)

PA0 - Intematix Corporation, Moraga CA [US]

IN - (B1) WANG GANG (US); YANG HAITAO (US); DIONNE GERALD F (US); XIANG XIAO DONG (US)

AP - US7156302 20020209 [2002US-0071563]

PR - US7156302 20020209 [2002US-0071563]

IC - (B1) G01V-003/00

EC - G01N-024/10

PCL - ORIGINAL (O) : 324300000; CROSS-REFERENCE (X) : 324304000

DT - Basic

CT - Cited; US6311086; US6472869; US6538454

STG - (B1) U.S. Patent (no pre-grant pub.) after Jan. 2, 2001

AB - Methods for spatially resolve spin resonance detection in a sample of material, with a resolution as small as 0.5 mu m-1 mm. In one embodiment, a coupler having at least one pair of degenerate orthogonal modes provides an evanescent input signal along one coupler axis to the sample, to which a magnetic field is applied, and senses a spin interaction signal along another coupler axis. In another embodiment, an evanescent input signal is applied to the sample along one of two identical transmission line resonators, and a difference of the two resonator signals provides a spin interaction signal. In another embodiment, a polarized laser beam provides an evanescent input signal to the sample, and the spin interaction signal is sensed according to a second beam polarization direction. Certain ferromagnetic or ferrimagnetic molecules, such as YIG, can be used to tag selected chemical and biological molecules, using spatially resolved spin resonance detection for interrogation.

UP - 2004-08

2 / 4 PLUSPAT - ©QUESTEL-ORBIT - image

PN - US6538454 B1 20030325 [US6538454]

TI - (B1) Near field microwave resistivity microscope including a dielectric resonator

PA - (B1) YISSUM RES DEV CO (IL)

PA0 - Yissum Research Development Company of the Hebrew University Jerusalem, Jerusalem [IL]

IN - (B1) DAVIDOV DAN (IL); FRENKEL AVRAHAM (IL); GOLOSOVSKY MICHAEL (IL)

AP - US65738300 20000908 [2000US-0657383]

PR - US65738300 20000908 [2000US-0657383]

IC - (B1) G01R-027/04

EC - G01N-022/00

PCL - ORIGINAL (O) : 324637000; CROSS-REFERENCE (X) : 324631000 324639000 324642000

DT - Corresponding document

CT - US5781018; US5821410; US5900618; US6020800; US6100703; US6209482; US6376836; US20020041221
Poole, "A comprehensive treatise on experimental techiniques", Electron spin resonance, second edition, copyright 1983, p. 149.

M. Tian et al., "Technique matches miniature waveguide-antenna apertures", Microwave & RF, Feb. 1995, pp. 100-105.

Cherpak et al., "Dielectric constant characterization of large-area substrates in millimeter wave band", International Journal of Infrared and Millimetr Waves, vol. 17, No. 5, 1996, pp. 819-831.

L. Hao et al., "Spatially resolved measurements of HTS microwave surface impedance", IEEE Transactions on Applied Superconductivity, vol. 9, No. 2, Jun. 1999, pp. 1944-1947.

Golosovsky et al., "Novel millimeter-wave near-field resistivity microscope", Applied Physics Letters, vol. 68, No. 11, Mar. 11, 1996, pp. 1579-1581.

Lann et al., "Combined millimeter-wave near-field microscope and capacitance distance control for the quantitative mapping of sheet resistance of conducting layers", Applied Physics Letters, vol. 73, No. 19, Nov. 9, 1998, pp. 2832-2834.

Tabib-Azar et al., "Nondestructive superresolution imaging of defects and nonuniformities in metals, semiconductors, dielectrics, composites, and plants using evanescent microwaves" Review of Scientific Instruments, vol. 70, No. 6, Jun. 1999, pp. 2783-2791.

C. Gao et al., "Quantitative microwave near-field microscopy of dielectric properties", Review of Scientific Instruments, vol. 69, No. 11, Nov. 1998, pp. 3846-3851.

Steinhauer et al., "Quantitative imaging of sheet resistance with a scanning near-field microwave microscope", Applied Physics Letters, vol. 72, No. 7, Feb. 16, 1998, pp. 861-863.

STG - (B1) U.S. Patent (no pre-grant pub.) after Jan. 2, 2001

AB - A microwave microscope having a resonant slit formed in a highly conductive end of a microwave waveguide forming a probe tip. A short dielectric rod is fit into the waveguide near its conductive end. A longer dielectric rod is placed in back of the short dielectric rod with a small gap between the two rods. The length of the shorter rod and the size of the gap are chosen to form a dielectric resonator at the microwave frequency adjacent to the probe tip. Thereby, the impedance of the waveguide can be matched to the generally high impedance of the slit probe tip. Preferably, the dielectric constant of the materials is high, thereby reducing the size of the waveguide and probe tip relative to the microwave wavelength.

UP - 2003-14

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PN - US6472869 B1 20021029 [US6472869]

TI - (B1) Diode laser-pumped magnetometer

PA - (B1) US AIR FORCE (US)

PA0 - United States of America as represented by the Secretary of the Air Force, Washington DC [US]

IN - (B1) UPSCHULTE BERNARD L (US); WRIGHT JOHN J (US); DAVIS STEVEN J (US); BALLING LUDWIG C (US)

AP - US88316601 20010618 [2001US-0883166]

PR - US88316601 20010618 [2001US-0883166]

IC - (B1) G01V-003/00

EC - G01R-033/26

PCL - ORIGINAL (O) : 324304000; CROSS-REFERENCE (X) : 324300000 324301000

DT - Basic

CT - US3750008; US4806864; US5436561; US5493223; US5602475

STG - (B1) U.S. Patent (no pre-grant pub.) after Jan. 2, 2001

AB - A diode laser-pumped magnetometer includes a diode laser that emits a polarized pumping laser beam with resonant optical radiation; and a K-cell through which a magnetic field is manifested from an independent source, the K-cell containing atoms with a dipole experiencing a torque due to the magnetic field. The atoms are

excited by the resonant optical radiation of the pumping laser beam and periodically emitting a response radiation as they return to ground state such that the response radiation includes photons that indicate one unit of angular momentum indicative of the torque due to the magnetic field. Finally, a photodetector serves as a means for measuring the response radiation of the K-cell to indicate thereby a measure of the magnetic field in the K-cell from the independent magnetic source.

UP - 2002-45

4/4 PLUSPAT - ©QUESTEL-ORBIT

PN - US6311086 B1 20011030 [US6311086]

TI - (B1) Overhauser magnetic resonance imaging (ORMI) method comprising ex vivo polarization of a magnetic resonance (MR) imaging agent

PA - (B1) NYCOMED IMAGING AS (US)

PA0 - Nycomed Imaging AS, Oslo [NO]

IN - (B1) WISTRAND LARS-GORAN (NO); HANSSON GEORG (NO); LEUNBACH IB (NO); AXELSSON OSKAR (NO); GOLMAN KLAES (NO); ARDENKJAER-LARSEN JAN HENRIK (NO); PETERSSON STEFAN (NO)

AP - US46009499 19991213 [1999US-0460094]

FD - Cont. of 19980619 []
Rel. Prov. 60/076,924 19980305 [1998US-P076924]

PR - US46009499 19991213 [1999US-0460094]
GB9712984 19970619 [1997GB-0012984]
GB9800158 19980105 [1998GB-0000158]
WOGB9801814 19980619 [1998WO-GB01814]
US7692498P 19980305 [1998US-P076924]

IC - (B1) A61B-005/05

EC - A61K-049/08
A61K-049/18
A61K-049/18K12
G01R-033/28A

PCL - ORIGINAL (O) : 600420000; CROSS-REFERENCE (X) : 324307000 324309000

DT - Basic

CT - US5263482; US5479925; WO9801766 A
"The Use of Dynamically Polarized Contrast Agents" Research Disclosure, 348, Apr. 1993, XP002070308.

Gerfen G.J. et al., "High frequency (140 Ghz) dynamic nuclear polarization; Polarization transfer to a solute in frozen aqueous solution", Journal of Chemical Physics, Jun. 22, 1995, XP002077806.

STG - (B1) U.S. Patent (no pre-grant pub.) after Jan. 2, 2001

AB - This invention provides a method of MR investigation of a sample, the method comprising: (i) placing in a uniform magnetic field a composition comprising an OMRI contrast agent and an MR imaging agent containing nuclei (MR imaging nuclei) capable of emitting magnetic resonance signals (e.g. the primary magnetic field B0) and capable of exhibiting a T1 relaxation time of 6 s or more (at 37 (degree) C. in D2 O in a field of 7T); (ii) exposing the composition to a first radiation of a frequency selected to excite electron spin transitions in the OMRI contrast agent; (iii) optionally but preferably separating the whole, substantially the whole, or a portion of said OMRI contrast agent from said MR imaging agent; (iv) administering said MR imaging agent to said sample, (v) exposing the sample to a second radiation of a frequency selected to excite nuclear spin transitions; (vi) detecting magnetic resonance signals from the sample; and (vii) optionally, generating an image or dynamic flow data from the detected signals.

UP - 2001-45

Search statement 3